

IN THE CLAIMS:

1. (Currently Amended) A method of updating bias of a signal model of a speech signal in a sequential manner, comprising the steps of:

introducing an adjustable bias in a ~~the~~ distribution parameter of a Hidden Markov Model (HMM) of a signal ~~the signals~~;

~~updating the adjustable bias every time a new observation of the signal is available; and~~

calculating a correction item for the adjustable bias based on each new observation used in recognizing the signal; and

updating the adjustable bias by adding the correction item thereto ~~the updated new bias by adding a correction item to the old bias.~~

2. (Currently Amended) The method of claim 1 wherein the adjustable bias can be defined on each state of the HMM state.

3. (Currently Amended) The method of claim 1 wherein the adjustable bias is shared among different states of the HMM.

4. (Currently Amended) The method of claim 1 wherein the adjustable bias is shared by groups of states of the HMM.

5. (Currently Amended) The method of claim 1 wherein the adjustable bias is shared by all states of the HMM ~~the distribution of a recognizer~~.

6. (Currently Amended) The method of claim 1 wherein the correction term is calculated based on ~~the information of both current model parameters~~ of the HMM and the new observation incoming observed signals.

7. (Currently Amended) The method of claim 1 wherein the correction term is calculated based on ~~the information of~~ both information derived from all signals provided to ~~a~~ the recognizer for said recognizing and the new observation incoming-observed signals.

8. (Original) The method of claim 1 wherein the signal comprises a speech signal.

9. (Currently Amended) The method of claim 1 wherein new available data from ~~the~~ a new observation ~~of the signals~~ could be based on any length.

10. (Currently Amended) The method of claim 1 wherein ~~the new available data from a~~ new observation is a frame.

11. (Currently Amended) The method of claim 1 wherein ~~the new available data from a~~ new observation is an ~~[[,]]~~ utterance.

12. (Currently Amended) The method of claim 1 wherein ~~the new available data from a~~ new observation is every fixed length of ~~the~~ speech signal.

13. (Currently Amended) The method of claim 1 wherein ~~the new available data from a~~ new observation is based on every 10 minutes of ~~the~~ speech signal.

14. (Currently Amended) The method of claim 1 wherein the correction item is ~~a~~ the product of ~~a~~ any sequence whose limit is zero, whose summation is infinity and whose square summation is not infinity and the summation of ~~the~~ quantities weighted by a probability, the quantities ~~are~~ based on ~~a~~ the divergence of desired model parameter and observed signal.